Highlights

Overview

This issue of the *Natural Gas Monthly* presents the most recent estimates of natural gas data from the Energy Information Administration (EIA). Estimates at the national level extend through October 1998 for many data series.

Highlights of the data contained in this issue are:

- The amount of working gas in underground storage facilities at the beginning of the 1998-99 heating season[1] is estimated to exceed 3 trillion cubic feet for the first time since the end of October 1994.
- Cumulatively through October 1998, domestic natural gas production is estimated to be 0.6 percent above the level for the same period in 1997, and cumulative end-use consumption is 2 percent below that of the previous 2 years.
- During 1998, monthly average natural gas wellhead prices have remained below $2.00 per thousand cubic feet through July. The highest estimate has been $1.89 per thousand cubic feet, reached in both April and July.

Supply

Ample supplies and lower consumption have enabled the natural gas industry to exceed 3,000 billion cubic feet of working gas in underground storage facilities at the beginning of the heating season for the first time in 4 years, while monthly wellhead prices have remained below $2.00 per thousand cubic feet from January through July 1998. Cumulatively for January through October 1998, dry natural gas production is estimated to be 0.6 percent above that of 1997 for the same period (Figure HI1). The most recent estimate of monthly production is 1,591 billion cubic feet or 51.3 billion cubic feet per day in October 1998 (Table 1). This daily rate is equal to that of October 1997 and is 1 percent lower than in September 1998.

Cumulatively for January through October 1998, net natural gas imports are estimated to be 2,445 billion cubic feet, 5 percent higher than last year's level. Most of these imports come via pipeline from Canada. Net imports for October 1998 are 253 billion cubic feet or 8.2 billion cubic feet per day, 6 percent higher than the daily rate in October 1997 (Table 2).

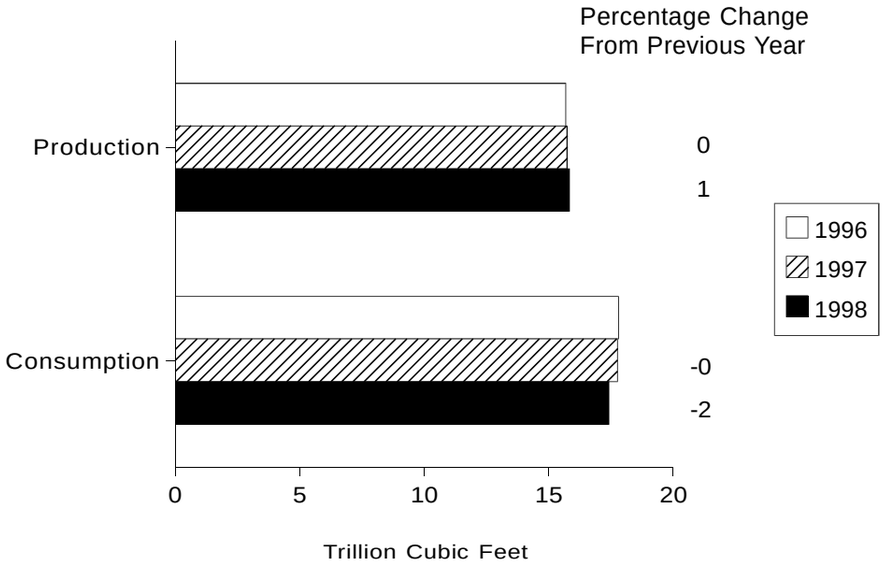
Working gas in storage ended the past heating season (March 31, 1998) at 1,184 billion cubic feet, 19 percent higher than the year earlier level (Figure HI2). Strong net injections during April 1998, of 198 billion cubic feet, brought working gas to a level that was 31 percent higher than a year earlier by the end of the month. Throughout the rest of the 1998 refill season, the relative "surplus" in working gas between 1998 and 1997 declined, but by the end of October 1998, an estimated 3,121 billion cubic feet of working gas is in storage, 8 percent more than at the end of October 1997. The level of working gas last exceeded 3,000 billion cubic feet at the beginning of the heating season when it reached 3,075 billion cubic feet at the end of October 1994.

End-Use Consumption

Cumulative end-use natural gas consumption for January through October 1998 is 2 percent below that of both 1997 and 1996 for the same period. The largest decline in consumption between 1997 and 1998, in both absolute and percentage terms, has occurred in the residential sector, reflecting the generally warmer temperatures experienced in January and February 1998. Cumulative residential natural gas consumption is estimated to be

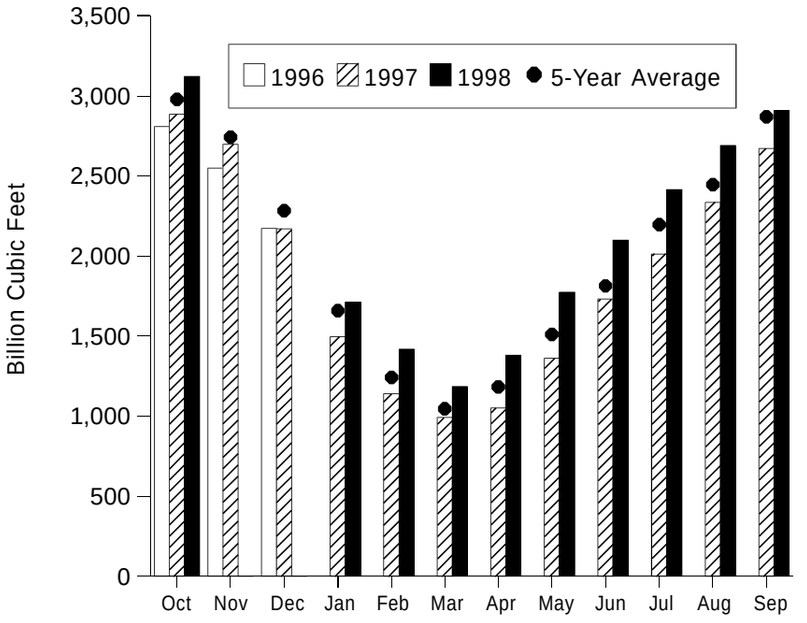
[1]The heating season is November 1 through March 31 of the next year. The storage refill season is from April 1 through October 31. The most recent data on working gas are for October 31, 1998.

Figure HI1. Natural Gas Production and Consumption, January-October, 1996-1998



Source: Table 2.

Figure HI2. Working Gas in Underground Storage in the United States, 1996-1998



Note: The 5-year average is calculated using the latest available monthly data. For example, the December average is calculated from December storage levels for 1993 to 1997 while the January average is calculated from January levels for 1994 to 1998. Data are reported as of the end of the month, thus October data represent the beginning of the heating season.

Sources: Form EIA-191, "Underground Natural Gas Storage Report," Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," and Short-Term Integrated Forecasting System.

3,463 billion cubic feet, 320 billion cubic feet below that for the same period in 1997, a decline of 8 percent (Figure HI3).

Residential consumption of natural gas is estimated to be 218 billion cubic feet in October 1998, 7 percent below that of October 1997 (Table 3). In the commercial sector, the October 1998 estimate of natural gas consumption is 185 billion cubic feet, 5 percent lower than in October 1997. In the industrial sector, natural gas consumption is estimated to have increased in October 1998 compared with October 1997. The October 1998 estimate is 736 billion cubic feet, 5 percent higher than a year ago. However, cumulatively through October, both commercial and industrial natural gas consumption are estimated to be below the level of 1997, by 6 and 2 percent, respectively.

Estimates of natural gas consumption by electric utilities are available through July 1998, when it is estimated that 449 billion cubic feet was consumed. This is 5 percent higher than in July 1997. Cumulatively, for January through July 1998, the electric utility sector consumed an estimated 1,810 billion cubic feet of natural gas, 12 percent more than in 1997 for the same period. In contrast, cumulative natural gas consumption in the other end-use sectors through July was from 3 to 7 percent below that of 1997. The increase in the electric utility sector was driven largely by utility use of natural gas for peak air-conditioning demand as extremely high temperatures lingered in the Southwest during the summer, particularly in Texas. Natural gas consumption by electric utilities in Texas accounted for 30 to 42 percent of the national increase in consumption seen in this sector for May, June, and July 1998.

Prices

Monthly natural gas wellhead prices have been much more stable during 1998 than in either of the past 2 years. The low and high price estimates thus far in 1998 are $1.71 per thousand cubic feet in June and $1.89, reached in both April and July (Table 4). This is a range of only $0.18 per thousand cubic feet compared with the ranges of $1.81 and $0.36 over the January-through-July periods of 1997 and 1996, respectively. The July 1998 wellhead estimate is 11 percent higher than that of June 1998. This rise occurred, in part, because severely high temperatures in the Southwest spread to most areas east of the Rockies during the month.[2]

Cumulatively for January through July 1998, end-use prices[3] are estimated to be lower than in 1997, but residential, commercial, and industrial prices are estimated to have increased between June and July 1998. The residential price of natural gas is estimated to be $8.99 per thousand cubic feet in July 1998, 7 percent higher than in June 1998, and the commercial price is estimated to be $5.63, 2 percent higher than in June 1998. Cumulatively through July, the average residential and commercial prices are estimated to be 2 and 5 percent lower than in 1997, respectively (Figure HI4). The price paid for natural gas by industrial users in July 1998 is estimated to be $2.99 per thousand cubic feet, 1 percent higher than in June 1998, but 2 percent lower than in July 1997. Cumulatively through July 1998, the average industrial price is estimated to be 7 percent lower than in 1997.

The average price of natural gas paid by electric utilities is estimated to be $2.40 per thousand cubic feet in June 1998, 2 percent lower than in May 1998 and 7 percent lower than in June 1997. Cumulatively for January through June 1998, the electric utility price is estimated to be 9 percent below that of 1997.

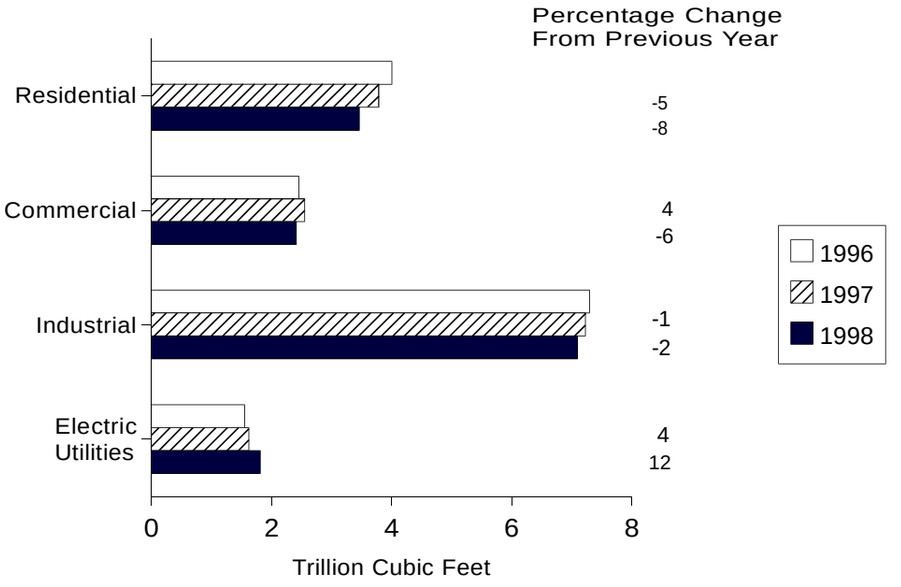
Recent data on natural gas futures prices reflect the abundant supply situation during October 1998, the last month of the 1998 storage refill season. Threats to natural gas production in the Gulf of Mexico from hurricane "Georges" and outages at two gas-processing plants in Louisiana caused by subsequent flooding[4] helped push both daily spot and nearby month futures prices at the Henry Hub over $2.00 per million Btu beginning in mid-September 1998. The futures settlement price climbed sharply to $2.432 per million Btu on October 2, but then fell by 16 percent to $2.041 on October 14, as the industry recovered from the effects of the hurricane and storage levels remained robust (Figure HI5). For the first time all year, the average daily spot price fell significantly below the futures settlement price during October. On October 23, 1998, the futures price settled at $2.164 per million Btu (the November contract closes October 28) while the average spot price was $1.85. Both price series have been well below those of 1997 in recent months. But during 1997, high temperatures and severe problems with the delivery of coal to electric utilities in Texas helped to spur an unusual increase in natural gas prices in the late summer. Prices later collapsed in November 1997.

[2]Energy Information Administration, *Natural Gas Weekly Market Update*, (June 29, 1998), http://www.eia.doe.gov.

[3]End-use prices in the residential, commercial, and industrial sectors are for onsystem gas sales only. While monthly onsystem sales are nearly 100 percent of residential deliveries, in 1998 they have been from 51 to 72 percent of commercial deliveries and only 13 to 17 percent of industrial deliveries (Table 4).

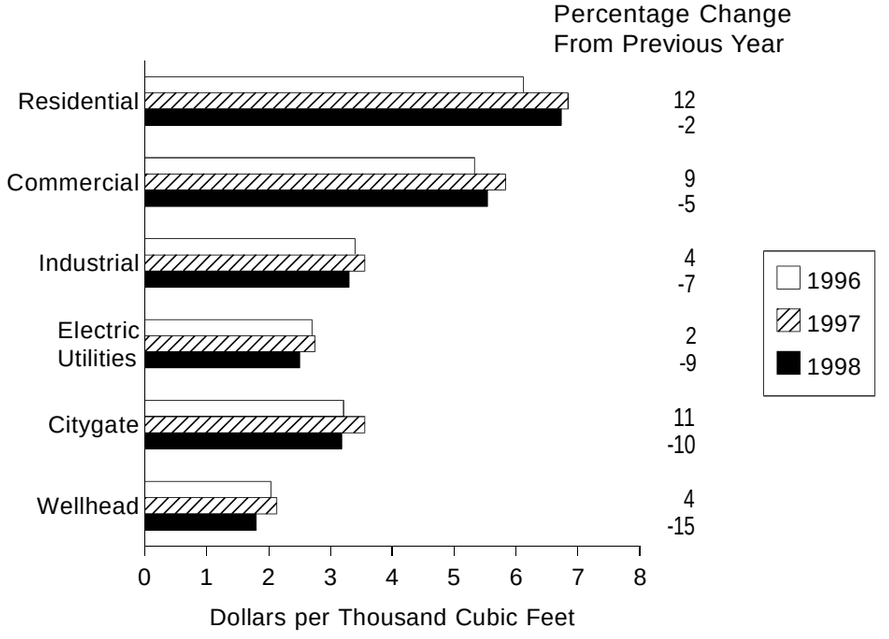
[4]Energy Information Administration, *Natural Gas Weekly Market Update*, (October 5, 1998), http://www.eia.doe.gov.

Figure HI3. Natural Gas Delivered to Consumers, January-October, 1996-1998



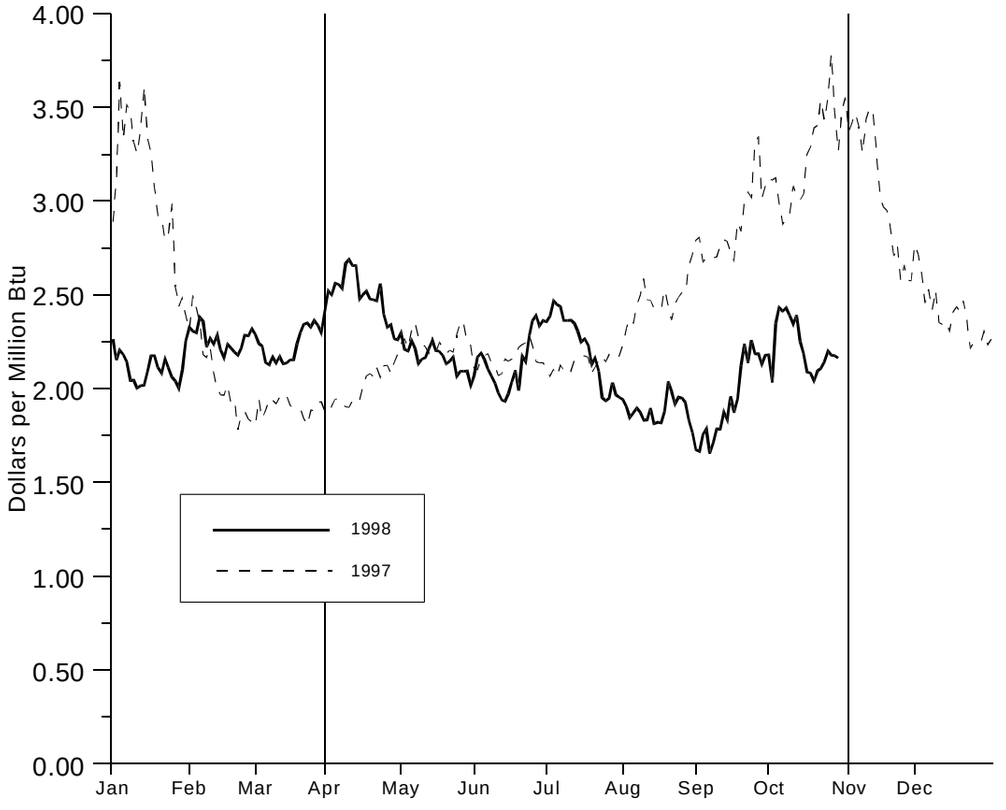
Note: The reporting of electric utility deliveries is 3 months behind the reporting of other deliveries.
Source: Table 3.

Figure HI4. Average Delivered and Wellhead Natural Gas Prices, January-July 1996-1998



Note: Commercial and industrial average prices reflect onsystem sales only. The reporting of electric utility prices is 1 month behind the reporting of other prices..
Source: Table 4.

Figure HI5. Daily Futures Settlement Prices at the Henry Hub



Note: The futures price is for the nearby month contract, that is, for the next contract to terminate trading. Contracts are traded on the New York Mercantile Exchange. April 1 is the beginning of the natural gas storage refill season. November 1 is the beginning of the heating season.

Source: Commodity Futures Trading Commission, Division of Economic Analysis.